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SEQUENCE LISTING

<110> Shunichi SHIOZAWA
Koichiro KOMAI

<120> RHEUMATOID ARTHRITIS GENE AND METHOD FOR DIAGNOSING RHEUMATOID ARTHRITIS

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<140> 09/936,989

<141> 2001-10-30

<150> PCT/JP00/01697

<151> 1999-10-23

<150> JP11-116933

<151> 1999-03-20

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<170> PatentIn Ver. 2.1

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cat tat gca ctt gat tta atc tgc cag agg tgc aat gag cta cgt tac	1089
His Tyr Ala Leu Asp Leu Ile Cys Gln Arg Cys Asn Glu Leu Arg Tyr	
290 295 300 305	
ctt tct gat att ttg gtt aat gag ata aaa gca aaa cgg ata caa ctc	1137

Leu	Ser	Asp	Ile	Leu	Val	Asn	Glu	Ile	Lys	Ala	Lys	Arg	Ile	Gln	Leu	
				310					315					320		
agc	agg	acc	ttc	aaa	atg	cat	aaa	ctc	cta	cag	cag	gct	cgt	caa	tgc	1185
Ser	Arg	Thr	Phe	Lys	Met	His	Lys	Leu	Leu	Gln	Gln	Ala	Arg	Gln	Cys	
			325					330					335			
tgt	gat	gaa	ggg	gaa	tgt	ctt	cta	gct	aat	cag	gaa	ata	gat	aag	ttt	1233
Cys	Asp	Glu	Gly	Glu	Cys	Leu	Leu	Ala	Asn	Gln	Glu	Ile	Asp	Lys	Phe	
		340					345					350				
cag	tct	aaa	gaa	gat	gct	cag	aaa	gct	ctc	caa	gac	att	gaa	aat	ttt	1281
Gln	Ser	Lys	Glu	Asp	Ala	Gln	Lys	Ala	Leu	Gln	Asp	Ile	Glu	Asn	Phe	
		355				360					365					
ctt	gaa	atg	gct	cta	ccc	ttt	ata	aat	tat	gaa	cct	gaa	aca	ctg	cag	1329
Leu	Glu	Met	Ala	Leu	Pro	Phe	Ile	Asn	Tyr	Glu	Pro	Glu	Thr	Leu	Gln	
370						375				380					385	
tat	gaa	ttt	gat	gta	ata	tta	tct	cct	gag	ctt	aag	gtt	caa	atg	aag	1377
Tyr	Glu	Phe	Asp	Val	Ile	Leu	Ser	Pro	Glu	Leu	Lys	Val	Gln	Met	Lys	
				390					395					400		
act	ata	caa	ctc	aag	ctt	gaa	aac	att	cga	agt	ata	ttt	gag	aac	cag	1425
Thr	Ile	Gln	Leu	Lys	Leu	Glu	Asn	Ile	Arg	Ser	Ile	Phe	Glu	Asn	Gln	
			405					410					415			
cag	gct	ggg	ttc	agg	aac	ctg	gca	gat	aag	cat	gtg	agg	cca	atc	caa	1473
Gln	Ala	Gly	Phe	Arg	Asn	Leu	Ala	Asp	Lys	His	Val	Arg	Pro	Ile	Gln	
		420					425					430				
ttt	gtg	gta	ccc	aca	cct	gaa	aat	ttg	gtc	aca	tct	ggg	aca	cca	ttt	1521
Phe	Val	Val	Pro	Thr	Pro	Glu	Asn	Leu	Val	Thr	Ser	Gly	Thr	Pro	Phe	
	435						440				445					
ttt	tca	tct	aaa	caa	ggg	aag	aag	act	tgg	aga	caa	aat	cag	agc	aac	1569
Phe	Ser	Ser	Lys	Gln	Gly	Lys	Lys	Thr	Trp	Arg	Gln	Asn	Gln	Ser	Asn	
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tta	aaa	att	gaa	gtg	gtg	cct	gat	tgt	cag	gag	aag	aga	agt	tct	ggg	1617
Leu	Lys	Ile	Glu	Val	Val	Pro	Asp	Cys	Gln	Glu	Lys	Arg	Ser	Ser	Gly	
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cca	tcc	tcc	agt	ttg	gac	aat	ggc	aat	agc	ttg	gat	gtt	tta	aag	aac	1665
Pro	Ser	Ser	Ser	Leu	Asp	Asn	Gly	Asn	Ser	Leu	Asp	Val	Leu	Lys	Asn	
			485					490					495			
cac	gta	cta	aat	gaa	ctg	ata	cag	act	gag	aga	gtt	tat	gtt	cga	gaa	1713
His	Val	Leu	Asn	Glu	Leu	Ile	Gln	Thr	Glu	Arg	Val	Tyr	Val	Arg	Glu	
		500					505					510				
ctg	tat	act	gtt	ttg	ttg	ggg	tat	aga	gcg	gag	atg	gat	aat	cca	gag	1761
Leu	Tyr	Thr	Val	Leu	Leu	Gly	Tyr	Arg	Ala	Glu	Met	Asp	Asn	Pro	Glu	
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atg	ttt	gat	ctt	atg	cca	cct	ctc	ctg	aga	aat	aaa	aag	gac	att	ctc	1809
Met	Phe	Asp	Leu	Met	Pro	Pro	Leu	Leu	Arg	Asn	Lys	Lys	Asp	Ile	Leu	

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ttt gga aac atg gca gaa ata tat gaa ttc cat aac gac att ttc ttg				1857
Phe Gly Asn Met Ala Glu Ile Tyr Glu Phe His Asn Asp Ile Phe Leu	550	555	560	
agc agc ctg gaa aat tgt gct cat gct cca gaa aga gtg gga cct tgt				1905
Ser Ser Leu Glu Asn Cys Ala His Ala Pro Glu Arg Val Gly Pro Cys	565	570	575	
ttc ctg gaa agg aag gat gat ttt cag atg tat gca aaa tat tgt cag				1953
Phe Leu Glu Arg Lys Asp Asp Phe Gln Met Tyr Ala Lys Tyr Cys Gln	580	585	590	
aat aag ccc aga tca gaa aca att tgg agg aag tat tca gaa tgc gca				2001
Asn Lys Pro Arg Ser Glu Thr Ile Trp Arg Lys Tyr Ser Glu Cys Ala	595	600	605	
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Phe Phe Gln Glu Cys Gln Arg Lys Leu Lys His Arg Leu Arg Leu Asp	610	615	620	625
tcc tat tta ctc aaa cca gtg caa cga atc act aaa tat cag tta ttg				2097
Ser Tyr Leu Leu Lys Pro Val Gln Arg Ile Thr Lys Tyr Gln Leu Leu	630	635	640	
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Leu Lys Glu Leu Leu Lys Tyr Ser Lys Asp Cys Glu Gly Ser Ala Leu	645	650	655	
ttg aag aag gca ctc gat gca atg ctg gat tta ctg aag tca gtt aat				2193
Leu Lys Lys Ala Leu Asp Ala Met Leu Asp Leu Leu Lys Ser Val Asn	660	665	670	
gat tct atg cat cag att gca ata aat ggc tat att gga aac tta aat				2241
Asp Ser Met His Gln Ile Ala Ile Asn Gly Tyr Ile Gly Asn Leu Asn	675	680	685	
gaa ctg ggc aag atg ata atg caa ggt gga ttc agc gtt tgg ata ggg				2289
Glu Leu Gly Lys Met Ile Met Gln Gly Gly Phe Ser Val Trp Ile Gly	690	695	700	705
cac aag aaa ggt gct aca aaa atg aag gat ttg gct aga ttc aaa cca				2337
His Lys Lys Gly Ala Thr Lys Met Lys Asp Leu Ala Arg Phe Lys Pro	710	715	720	
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Met Gln Arg His Leu Phe Leu Tyr Glu Lys Ala Ile Val Phe Cys Lys	725	730	735	
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Arg Arg Val Glu Ser Gly Glu Gly Ser Asp Arg Tyr Pro Ser Tyr Ser	740	745	750	
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Phe Lys His Cys Trp Lys Met Asp Glu Val Gly Ile Thr Glu Tyr Val	755	760	765	

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Lys Gly Asp Asn Arg Lys Phe Glu Ile Trp Tyr Gly Glu Lys Glu Glu	
770 775 780 785	
ggt tat att gtc cag gct tct aat gta gat gtg aag atg acg tgg cta	2577
Val Tyr Ile Val Gln Ala Ser Asn Val Asp Val Lys Met Thr Trp Leu	
790 795 800	
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Lys Glu Ile Arg Asn Ile Leu Leu Lys Gln Gln Glu Leu Leu Thr Val	
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Lys Lys Arg Lys Gln Gln Asp Gln Leu Thr Glu Arg Asp Lys Phe Gln	
820 825 830	
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Ile Ser Leu Gln Gln Asn Asp Glu Lys Gln Gln Gly Ala Phe Ile Ser	
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act gag gaa act gaa ttg gaa cac acc agc act gtg gtg gag gtc tgt	2769
Thr Glu Glu Thr Glu Leu Glu His Thr Ser Thr Val Val Glu Val Cys	
850 855 860 865	
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Ala Ser Gln Ser Val Glu Ile Ser Glu Glu Pro Ala Glu Trp Ser Ser	
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aac tat ttc tac ccc act tat gat gaa aat gaa gaa gaa aat agg ccc	2913
Asn Tyr Phe Tyr Pro Thr Tyr Asp Glu Asn Glu Glu Glu Asn Arg Pro	
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ctc atg aga cct gtg tcg gag atg gct ctc cta tat tga tgaagctact	2962
Leu Met Arg Pro Val Ser Glu Met Ala Leu Leu Tyr	
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 35 40 45
 Gln Glu Asp Phe Met Pro Lys Leu Pro Val Val Met Leu Ser Ser Val
 50 55 60
 Ser Asp Leu Leu Thr Tyr Ile Asp Asp Lys Gln Leu Thr Pro Glu Leu
 65 70 75 80
 Gly Gly Thr Leu Gln Tyr Cys His Ser Glu Trp Ile Ile Phe Arg Asn
 85 90 95
 Ala Ile Glu Asn Phe Ala Leu Thr Val Lys Glu Met Ala Gln Met Leu
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 Gln Ser Phe Gly Thr Glu Leu Ala Glu Thr Glu Leu Pro Asp Asp Ile
 115 120 125
 Pro Ser Ile Glu Glu Ile Leu Ala Ile Arg Ala Glu Arg Tyr His Leu
 130 135 140
 Leu Lys Asn Asp Ile Thr Ala Val Thr Lys Glu Gly Lys Ile Leu Leu
 145 150 155 160
 Thr Asn Leu Glu Val Pro Asp Thr Glu Gly Ala Val Ser Ser Arg Leu
 165 170 175
 Glu Cys His Arg Gln Ile Ser Gly Asp Trp Gln Thr Ile Asn Lys Leu
 180 185 190
 Leu Thr Gln Val His Asp Met Glu Thr Ala Phe Asp Gly Phe Trp Glu
 195 200 205
 Lys His Gln Leu Lys Met Glu Gln Tyr Leu Gln Leu Trp Lys Phe Glu
 210 215 220

Gln Asp Phe Gln Gln Leu Val Thr Glu Val Glu Phe Leu Leu Asn Gln
 225 230 235 240
 Gln Ala Glu Leu Ala Asp Val Thr Gly Thr Ile Ala Gln Val Lys Gln
 245 250 255
 Lys Ile Lys Lys Leu Glu Asn Leu Asp Glu Asn Ser Gln Glu Leu Leu
 260 265 270
 Ser Lys Ala Gln Phe Val Ile Leu His Gly His Lys Leu Ala Ala Asn
 275 280 285
 His His Tyr Ala Leu Asp Leu Ile Cys Gln Arg Cys Asn Glu Leu Arg
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 Tyr Leu Ser Asp Ile Leu Val Asn Glu Ile Lys Ala Lys Arg Ile Gln
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 Leu Ser Arg Thr Phe Lys Met His Lys Leu Leu Gln Gln Ala Arg Gln
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 405 410 415
 Gln Gln Ala Gly Phe Arg Asn Leu Ala Asp Lys His Val Arg Pro Ile
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 450 455 460
 Asn Leu Lys Ile Glu Val Val Pro Asp Cys Gln Glu Lys Arg Ser Ser
 465 470 475 480
 Gly Pro Ser Ser Ser Leu Asp Asn Gly Asn Ser Leu Asp Val Leu Lys
 485 490 495
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 500 505 510
 Glu Leu Tyr Thr Val Leu Leu Gly Tyr Arg Ala Glu Met Asp Asn Pro
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Glu	Met	Phe	Asp	Leu	Met	Pro	Pro	Leu	Leu	Arg	Asn	Lys	Lys	Asp	Ile
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Leu	Phe	Gly	Asn	Met	Ala	Glu	Ile	Tyr	Glu	Phe	His	Asn	Asp	Ile	Phe
545					550					555					560
Leu	Ser	Ser	Leu	Glu	Asn	Cys	Ala	His	Ala	Pro	Glu	Arg	Val	Gly	Pro
				565					570					575	
Cys	Phe	Leu	Glu	Arg	Lys	Asp	Asp	Phe	Gln	Met	Tyr	Ala	Lys	Tyr	Cys
			580					585					590		
Gln	Asn	Lys	Pro	Arg	Ser	Glu	Thr	Ile	Trp	Arg	Lys	Tyr	Ser	Glu	Cys
		595					600					605			
Ala	Phe	Phe	Gln	Glu	Cys	Gln	Arg	Lys	Leu	Lys	His	Arg	Leu	Arg	Leu
	610					615					620				
Asp	Ser	Tyr	Leu	Leu	Lys	Pro	Val	Gln	Arg	Ile	Thr	Lys	Tyr	Gln	Leu
625					630					635					640
Leu	Leu	Lys	Glu	Leu	Leu	Lys	Tyr	Ser	Lys	Asp	Cys	Glu	Gly	Ser	Ala
				645					650					655	
Leu	Leu	Lys	Lys	Ala	Leu	Asp	Ala	Met	Leu	Asp	Leu	Leu	Lys	Ser	Val
			660					665					670		
Asn	Asp	Ser	Met	His	Gln	Ile	Ala	Ile	Asn	Gly	Tyr	Ile	Gly	Asn	Leu
		675					680						685		
Asn	Glu	Leu	Gly	Lys	Met	Ile	Met	Gln	Gly	Gly	Phe	Ser	Val	Trp	Ile
	690					695					700				
Gly	His	Lys	Lys	Gly	Ala	Thr	Lys	Met	Lys	Asp	Leu	Ala	Arg	Phe	Lys
705					710					715					720
Pro	Met	Gln	Arg	His	Leu	Phe	Leu	Tyr	Glu	Lys	Ala	Ile	Val	Phe	Cys
				725					730					735	
Lys	Arg	Arg	Val	Glu	Ser	Gly	Glu	Gly	Ser	Asp	Arg	Tyr	Pro	Ser	Tyr
			740					745					750		
Ser	Phe	Lys	His	Cys	Trp	Lys	Met	Asp	Glu	Val	Gly	Ile	Thr	Glu	Tyr
		755					760					765			
Val	Lys	Gly	Asp	Asn	Arg	Lys	Phe	Glu	Ile	Trp	Tyr	Gly	Glu	Lys	Glu
	770					775					780				
Glu	Val	Tyr	Ile	Val	Gln	Ala	Ser	Asn	Val	Asp	Val	Lys	Met	Thr	Trp
785					790					795					800
Leu	Lys	Glu	Ile	Arg	Asn	Ile	Leu	Leu	Lys	Gln	Gln	Glu	Leu	Leu	Thr
				805					810					815	
Val	Lys	Lys	Arg	Lys	Gln	Gln	Asp	Gln	Leu	Thr	Glu	Arg	Asp	Lys	Phe
			820					825					830		

Gln	Ile	Ser	Leu	Gln	Gln	Asn	Asp	Glu	Lys	Gln	Gln	Gly	Ala	Phe	Ile
		835					840					845			
Ser	Thr	Glu	Glu	Thr	Glu	Leu	Glu	His	Thr	Ser	Thr	Val	Val	Glu	Val
	850					855					860				
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865					870					875					880
Glu	Ala	Ser	Gln	Ser	Ala	Glu	Ile	Ser	Glu	Glu	Pro	Ala	Glu	Trp	Ser
			885						890					895	
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		900						905					910		
Pro	Leu	Met	Arg	Pro	Val	Ser	Glu	Met	Ala	Leu	Leu	Tyr			
		915					920					925			